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[SYSTEM AND METHOD TO CONTROL A SWITCHABLE POWERTRAIN MOUNT]

Abstract of Disclosure

A strategy controls alternate anti-vibration modes in a switchable powertrain mount using vehicle operational status sensors and pre-selected thresholds. The switchable mount modes can include engine idle and a default engine off/run. Vehicle sensors and pre-selected thresholds can determine whether the engine is off, idle, or running and when in idle mode, whether the engine will likely remain in idle mode. From these determinations, the controller can command the switchable mount to engine idle mode when the controller determines the engine is in idle mode and will likely remain in idle mode. The switching means for the switchable mount can use a three-way vacuum solenoid valve (VSV), or a mechanical or electrical switch. In the case of the VSV configuration, the VSV is communicatively attached to the controller, a vacuum line connects the VSV to the switchable mount, and a second vacuum line connects the VSV to an engine intake manifold.

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Figures

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